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(21)

12 JUN 1984

MEMORANDUM FOR: (See Distribution List)

FROM: [redacted] 25X1
Chief, Strategic Resources Division
Office of Global Issues

SUBJECT: An Update on Soviet Grain Crop Conditions [redacted] 25X1

1. The attached analysis updates our memorandum of 29 May 1984 on the same subject. Additional memoranda will be issued throughout the summer should abrupt changes in the weather in the USSR significantly alter our assessment of crop conditions. An in-depth forecast of 1984 Soviet grain production and the expected economic applications for the USSR and world grain markets will be published in July. [redacted] 25X1 25X1

2. This assessment was produced by [redacted] 25X1 the Agricultural Assessments Branch, Strategic Resources Division, Office of Global Issues. [redacted] 25X1

3. Comments and questions are welcome and may be addressed to the Chief, Agricultural Assessments Branch, [redacted] 25X1

[redacted] 25X1

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Attachment:
USSR: An Update on the 1984 Grain Crop [redacted] 25X1
GI M 84-10109, June 1984. [redacted] 25X1

[redacted] 25X1

GI M 84-10109

[redacted] 25X1

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SUBJECT: An Update on Soviet Grain Crop Conditions [redacted] 25X1

OGI/SRD/AAB/[redacted] (12 June 84) 25X1

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Central Intelligence Agency

Washington, D.C. 20505

DIRECTORATE OF INTELLIGENCE

12 JUN 1984

# USSR: An Update on the 1984 Grain Crop

## Summary

Drought in the lower and middle Volga Valley and parts of the Central Black Earth, North Caucasus, Volga Vyatka and western Kazakhstan regions has eliminated Moscow's chances for an above-average crop this year. However, large areas of the USSR are not moisture deficient. We estimate that about two thirds of the total grain crop has fair to excellent soil moisture reserves and we continue to believe grain production could go as high as 200 million tons, given ideal weather for the remainder of the crop season.

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This memorandum was prepared by [redacted] 25X1
[redacted] Agricultural Assessments Branch, Strategic 25X1
Resources Divison, Office of Global Issues. Comments may be
directed to [redacted] Chief, Strategic Resources Division, on 25X1
[redacted] 25X1

GI M 84-10109 [redacted] 25X1

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## USSR: An Update on the 1984 Grain Crop

While early drought in a key portion of the Soviet grain region precludes an above-average[1] grain crop this year, we believe that press predictions of another disastrous crop shortfall for the country as a whole are premature. Although the drought intensified during most of May because of a stationary high pressure system over the Volga Valley, showers in portions of the afflicted area in late May and early June signaled the breakdown of this system. Weather conditions have also improved throughout the remainder of the USSR in recent weeks. Hence, even with the serious winter grain losses already experienced, total grain production in 1984 could yet reach 200 million metric tons.

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### Grain Crop Developments to Date

Winter Grains. The high pressure ridge which intensified the drought in the lower and middle Volga Valley and parts of the Central Black Earth, North Caucasus, Volga Vyatka and western Kazakhstan regions in early-to-mid May has weakened considerably. Scattered showers have been falling in the region over the last three weeks. However, the continuous hot dry weather which had plagued the region for at least the previous 10 weeks greatly reduced the yield potential of many winter grainfields and will keep production there much below normal.

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The negative prospects of the Valley and adjacent regions are in contrast to the improved soil moisture conditions prevailing in the Ukraine, Belorussia, Moldavia, and Krasnodar in the North Caucasus. Ample precipitation in these areas during the late spring replenished scanty soil moisture reserves caused by a dry fall, winter and early spring. The Baltic republics are also in excellent condition. Landsat and reconnaissance imagery, combined with agricultural attache reporting, corroborate the good to excellent growing conditions there (see table 1). (S NF)

With the return to more normal weather in these areas, we estimate that a winter grain harvest of 60-65 million tons is likely. A crop of this size would be 5-10 million tons larger than the estimated annual output of 55 million tons averaged during 1979-83.

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Spring Grains. The rainshowers of late May and early June in the Volga Valley and adjacent regions probably did not cover

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[1] Throughout this paper, unless stated otherwise, the terms "average crop" or "average production" refer to the 1976-80 period average.

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large enough areas to reverse the effect of the drought on emerging spring grains nor replenish subsoil moisture reserves. Where they occurred, the rains probably have halted, at least temporarily, further deterioration of the crops. We expect that the weakening of the high pressure system presages a weather change in the droughty areas. But even if the weather returns to normal for the rest of the growing season, we expect the spring grains that have survived will do poorly in the drought-affected areas, primarily because low subsoil moisture reserves will make them more susceptible to damage during the heat of the summer.

Outside the drought area, analysis of Landsat imagery and weather data indicates that prospects for the spring grains have improved. Soil moisture conditions in the larger producing oblasts in Kazakhstan and Siberia are good to excellent. The Soviets report that in Kazakhstan sowing plans have been overfulfilled, more grain area has been fertilized than ever before, and grain has been sown on a larger percentage of fallow land. Kazakhstan and Siberia produce approximately half of all the spring grains and, given normal weather for the remainder of the season, we expect above-average production from these regions. Soil moisture reserves are also high in the spring grainfields of the Ukraine, Belorussia, and the Baltics. Reserves are fair in the Central Black Earth and Urals regions (see table 1).

We estimate that spring grains have been sown on approximately 90 million hectares. As the crop is only now emerging in most areas, however, it is too early to definitively estimate spring grain production.

The Outlook

Although weather in the droughty areas could continue to improve, in our judgement most of the winter and spring grain production in the lower Volga valley, about 5 million tons in an average year, has been lost. In addition, much of the damage done by the drought to spring grains elsewhere is irreversible, but it will be several weeks before we can accurately assess the extent of the damage. The spring grains will remain particularly susceptible to damage during the remainder of the season.

On the positive side, prospects for about two-thirds of the crop have improved in recent weeks and we continue to believe that a grain crop as high as 200 million tons is possible if ideal growing conditions prevail through the summer.

Table 1

USSR: Soil Moisture Conditions of Grain Areas As of 31 May 1984

| Region | Percent of Total USSR Grain Production[1] | Percent of Grain Area in Each Soil Moisture Class[2] Poor | Fair | Good |
|---|---|---|---|---|
| Northwest | 0.7 | 0 | 35 | 65 |
| Central | 5.4 | 32 | 39 | 29 |
| Volga-Vyatka | 2.3 | 88 | 12 | 0 |
| C. Black Earth | 5.9 | 41 | 50 | 9 |
| Volga | 13.0 | 83 | 16 | 1 |
| N. Caucasus: Krasnodar | 3.8 | 11 | 11 | 78 |
| N. Caucasus: Remainder | 4.9 | 50 | 28 | 22 |
| Urals | 6.1 | 37 | 31 | 32 |
| W. Siberia | 8.3 | 10 | 30 | 60 |
| E. Siberia | 3.2 | 0 | 0 | 100 |
| Ukraine | 22.4 | 13 | 20 | 67 |
| Kazakhstan[3] | 13.1 | 41 | 41 | 18 |
| Belorussia | 3.1 | 0 | 14 | 86 |
| Baltics | 2.6 | 4 | 34 | 62 |
| Other[4] | 3.5 | Not Monitored | | |
| USSR | 100 | 32 | 28 | 40 |

1 1971-1980 estimated average.

2 Poor is defined as 0-40% of plant available soil moisture in the first meter of the soil profile; fair is defined as 40-60%; good is 60-100%.

3 Soil moisture is usually relatively low at this time of year. Kazakhstan receives most of its precipitation during June and July.

4 Includes Central Asia and Transcaucasus Republics with relatively stable production from year-to-year.